6JQ6

Beam Power Tube

with an Integral Diode

9-PIN MINIATURE TYPE

PLATE DISSIPATION = 10 WATTS — **DARK HEATER**

For Feedback-Stabilized Vertical Deflection Amplifier Applications in Black-and-White and Color TV Receivers

ELECTRICAL CHARACTERISTICS

Bogey Values

Heater Voltage (AC or DC)	E_h		6.3	V
Heater Current	I_h		1.2	A
Direct Interelectrode Capacitances				
Without external shield				
Grid No.1 to plate	c_{g1-p}		0.32	pF
Input: G1 to (K, G3 + P_D, G2, H)	c_i		13.0	pF
Output: P to (K, G3 + P_D, G2, H)	c_o		6.0	pF

For the following characteristics, see Conditions

Amplification Factor (Triode Connection)[a]	μ		6.5	
Plate Resistance (Approx.)	r_p		10.5	kΩ
Transconductance	g_m		4200	μmho
DC Plate Current	I_b	150[b]	35	mA
DC Grid-No.2 Current	I_{c2}	20[b]	2.5	mA
Cutoff DC Grid-No.1 Voltage, Plate mA = 1	$E_{c1(co)}$		-37	V
Instantaneous Diode-Plate-to-Cathode-Voltage Drop for instantaneous diode-plate current ($r_{b(d)}$) = 2 mA	$e_{b(d)}$		5	V

Conditions

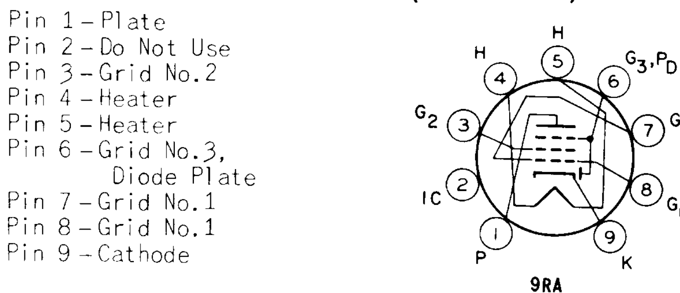
Heater	E_h	6.3	6.3	V
DC Plate Voltage	E_b	40	140	V
DC Grid-No.3 Voltage	E_{c3}	0	0	V
DC Grid-No.2 Voltage	E_{c2}	120	140	V
DC Grid-No.1 Voltage	E_{c1}	0	-18	V

MECHANICAL CHARACTERISTICS

Operating Position	Any
Type of Cathode	Coated Unipotential
Dimensional Outline (JEDEC 6-4)	See *General Section*
Maximum Overall Length	3.062 in (77.77 mm)
Maximum Seated Length	2.812 in (71.42 mm)
Maximum Diameter	0.875 in (22.22 mm)
Envelope	JEDEC Designation T6-1/2
Base	Small-Button Noval 9-Pin (JEDEC Designation E9-1)
Terminal Diagram	9RA

TERMINAL DIAGRAM (Bottom View)

Pin 1 - Plate
Pin 2 - Do Not Use
Pin 3 - Grid No.2
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Grid No.3, Diode Plate
Pin 7 - Grid No.1
Pin 8 - Grid No.1
Pin 9 - Cathode



DESIGN-MAXIMUM RATINGS[c]

For operation as a Feedback-Stabilized Vertical-Deflection-Amplifier Tube in Black-&-White & Color Television Receivers in a 525-line, 30-frame system

DC Plate Voltage	E_b	425	V
Peak Positive-Pulse Plate Voltage (Absolute-Maximum Value)[d]	e_{bm}	2000	V
DC Grid-No.3 & Diode-Plate Voltage	$E_{c3}, E_{b(d)}$	+10 -150	V V
DC Grid-No.2 (Screen-Grid) Voltage	E_{c2}	330	V
Peak Negative-Pulse Grid-No.1 (Control-Grid) Voltage	e_{c1m}	150	V
Heater-Cathode Voltage			
Peak	e_{hkm}	±200	V
Average[e]	$E_{hk(av)}$	100	V
Heater Voltage (AC or DC)	E_h	5.7 to 6.9	V
Cathode Current			
Peak	i_{km}	250	mA
Average[e]	$I_{k(av)}$	70	mA
Average Diode-Plate (& Grid-No.3) Current[e]	$I_{b(av)\,(d)}$	1	mA
Grid-No.2 Input	P_{g2}	2	W
Plate Dissipation	P_b	10	W
Envelope Temperature (At hottest point on envelope surface)	T_E	240	°C

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance	$R_{g1(ckt)}$		
For grid-No.1-resistor-bias operation	-	2.2	MΩ
For cathode-bias operation	-	2.2	MΩ

[a] With grid No.3 and diode plate connected to cathode and with grid No.2 connected to plate at socket.

[b] This value can be measured by a method involving a recurrent waveform such that the Maximum Ratings of the tube will not be exceeded.

[c] Unless otherwise specified.

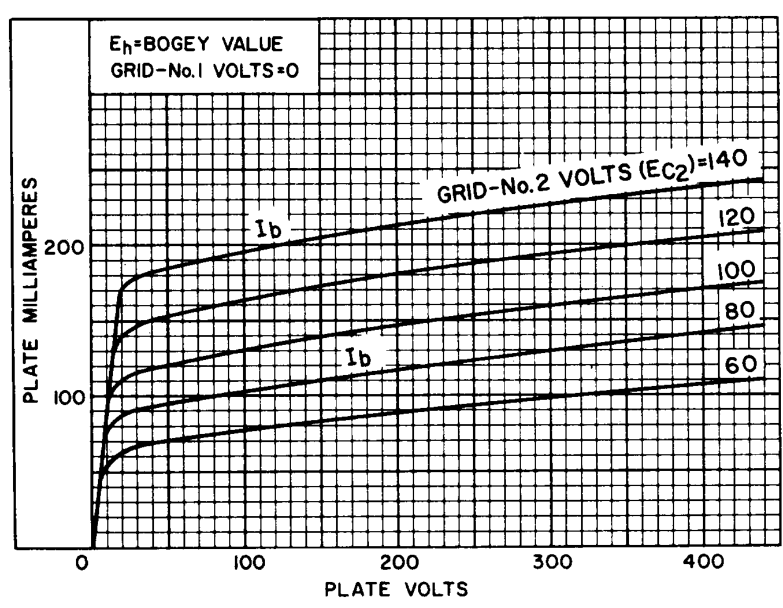
[d] This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 ms.

[e] Measured with a dc meter.

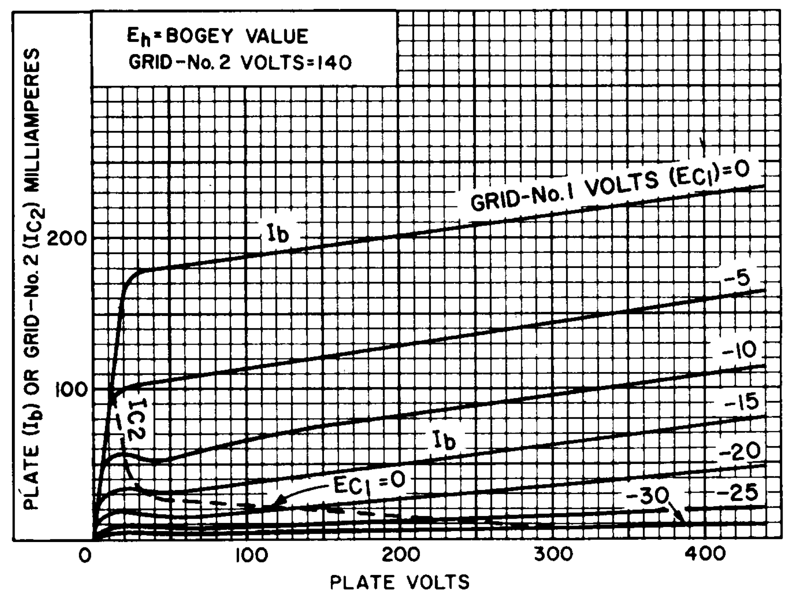
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Electronic Components and Devices Harrison, N. J.



Typical Characteristics



92CS-14660



92CS-14661